REMARKS

Claims 1-28 are all the claims pending in the application and claims 7 and 15-28 are withdrawn from consideration. Claims 1 and 2 have been amended. Support for amended claims 1 and 2 can be found, for example, at page 41, lines 10-13 and page 38, lines 13-18 of the present specification, and by reference to Figures 2 and 8. Entry of the above amendments is respectfully requested.

Initially, Applicants thank the Examiner for acknowledging Applicants' election of Group I, claims 1-6, and for indicating that claims 8-14 have been re-grouped with claims 1-6.

I. Response to rejection of claims 8, 9 and 12 under 35 U.S.C. § 112, second paragraph

On page 2 of the Office Action, the Examiner rejected claims 8, 9 and 12 under 35 U.S.C. 112, second paragraph, as being indefinite.

Basically, the Examiner considered that the meaning and scope of "or precursor thereof' in claims 8 and 9, line 2, and "or any substituted derivative thereof" in claim 12, last line, are indefinite and unclear.

Applicants respectfully traverse for the reason that one of ordinary skill in the art could readily ascertain the scope of the claimed "precursor" in view of the disclosure at page 25, line 10 et seq. Also, the present specification discloses that "polyimides are conventionally used as a solution prepared by dissolving a polyamic acid as a precursor in a solvent. . ." at page 26, line 11 et seq., and that "the solution coated is thermally modified into a polymer and cured by a heat treatment. . ." at page 29, line 19 et seq.

In addition, one of ordinary skill could readily ascertain the scope of the claimed "substituted derivative" in view of the disclosure bridging pages 37-38. For example, the present specification discloses 3, 4-ethylenedioxythiophene as a substituted derivative of thiophene.

Accordingly, one of ordinary skill in the art would readily understand the meaning and scope of the claimed "precursor" and "substituted derivative", and withdrawal of the rejection is respectfully requested.

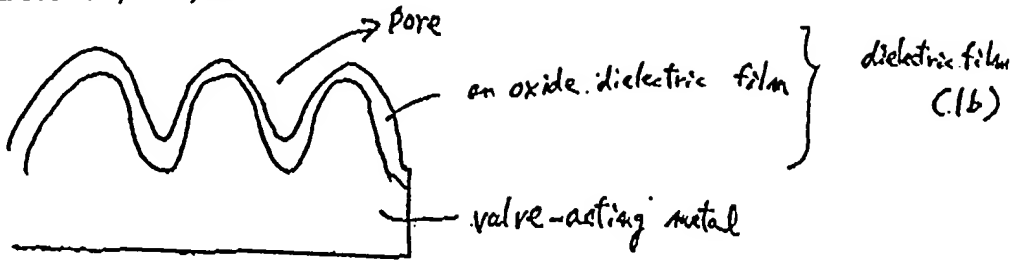
II. **Response to rejection of claims 1-6 and 8-14 under 35 U.S.C. § 112**

On pages 2-3 of the Office Action, the Examiner rejected claims 1-6 and 8-14 under 35 U.S.C. 112, first paragraph,

Basically, because the dielectric oxide film is very dense, the Examiner questioned how the masking material solution infiltrates into the dielectric film (the dielectric film, itself, per se). Also, the Examiner considered that since the solid electrolyte infiltrates into the dielectric film (1b) to the core metal material, (see Figs. 2, 8 and Abstract), the solid electrolyte capacitor would short-circuit in operation.

Applicants respond as follows.

The dielectric film itself is not porous. However, the metal material having valve action has pores, and the dielectric (oxide) film deposited on the metal material conforms to the pores of the valve-acting metal. In this manner, the masking material solution infiltrates into the pores of the dielectric film, and forms a masking layer on the infiltrated portion. The pores of the dielectric film are shown schematically below.



Therefore, the masking material solution does not infiltrate through the dielectric film itself, but rather into the surface pores of the dielectric film.

In this regard, the Examiner's attention is directed to Figure 8, the enlarged photograph, where one can observe how the masking material solution infiltrates into the pores of the dielectric film layer (1b) as described at page 41, lines 10-13 of the present specification. See also, page 19, line 18 et seq. and Figure 2.

Accordingly, the purpose of the masking material layer is to prevent the solid electrolyte from contacting the anode terminal. *See* page 20, lines 4-11 and page 25, lines 5-9. Therefore, the solid electrolyte capacitor would not short-circuit in operation. That is, contrary to the Examiner's understanding, the masking material prevents the solid electrolyte from contacting the anode terminal. *See* page 20, lines 12-19 and Figure 3.

For clarification, claims 1 and 2 have been amended to recite that the dielectric film has surface pores, and that the masking material solution infiltrates into the pores of the dielectric film.

In view of the above, Applicants submit that the specification fully enables one skilled in the art to make and/or use the invention, and therefore, withdrawal of the rejection is respectfully requested.

III. **Response to rejection of claims 1-3 and 8-14**

On pages 3-4 of the Office Action, the Examiner rejected claims 1-3, 8-9, 11, 12,

and 14 under 35 U.S.C. 102(b) as allegedly being anticipated by Kudoh et al. (U.S. Patent 5,198,967[2]). In addition, on pages 5-6 of the Office Action, the Examiner rejected claims 10-13 under 35 U.S.C. 103(a) as being unpatentable over Kudoh taken with Applicant admitted prior art.

Applicants respond as follows.

The present invention relates to a method for producing a solid electrolytic capacitor where a masking material solution that infiltrates into the pores of the dielectric film forms a masking layer (claim 1), and the solidified masking layer prevents infiltration of a solid electrolyte subsequently formed (claim 2).

Kudoh relates to a method for manufacturing a solid electrolytic capacitor where a first polymerization electrode is kept away from a second polymerization electrode by an insulating layer. Kudoh discloses that a polymer or pre-polymer solution of the insulating layer is applied to the inorganic conductive layer in position and dried. *See* col. 9, lines 44-46. The inorganic conductive layer is provided on the dielectric oxide film. *See* col. 8, lines 51-55.

The Examiner asserts that the solution of pre-polymer 13 would inherently infiltrate into the dielectric oxide film 21 and form a masking layer on the infiltrated portion.

However, since the insulating layer 13 of Kudoh is formed on the conductive layer 22 (and also on valve metal member 10), and not directly on the dielectric oxide film 21, the insulating solution does not infiltrate into pores of the dielectric layer.

Therefore, contrary to the Examiner's assertion, Kudoh does not disclose or

[2] The Examiner appears to have meant "U.S. Patent 5,117,332").

suggest infiltration of masking material into pores of a dielectric film, or the prevention of a solid electrolyte from infiltrating into dielectric oxide film.

Accordingly, Kudoh fails to teach or suggest the present invention, and withdrawal of the foregoing rejection is respectfully requested.

IV. **Response to rejection of claims 1-3, 8-9, 11, 12 and 14 under 35 U.S.C. § 102(b)**

On pages 4-5 of the Office Action, the Examiner rejected claims 1-3, 8-9, 11, 12 and 14 under 35 U.S.C. 102(b) as being anticipated by JP 5-047611 ("JP '611") with Applicants' allegedly admitted prior art (specification pages 3-4).

Applicants respond as follows.

JP '611 relates to a method for manufacturing a solid electrolytic capacitor in which an insulating film is formed (on a valve action metal having thereon a dielectric oxide film) where a solid electrolyte is not formed. The insulating layer is formed by electrodepositing a solution containing a polyamic salt and heat treating to form a polyimide film.

In contrast, the present invention does not coat the dielectric film by electrodepositing a masking material solution. In the embodiments of the present invention according to amended claims 1 and 2, the masking material solution is applied by press-contacting. That is, the solution, which comprises a heat-resistant resin or polyimide, is applied to the surface of a disk; the disk is contacted with the foil, thereby applying the solution onto the dielectric film. *See* page 32, lines 1-6. The solution is applied by press-contacting the coating surface of the disk onto the aluminum formed foil. *See* page 38, lines 13-18.

Accordingly, it is submitted that the amended claims are patentable over JP '611, and withdrawal of the foregoing rejection is respectfully requested.

VI. **Response to rejection of claims 1-3 and 8-14 under 35 U.S.C. § 103**

On pages 6-7 of the Office Action, the Examiner rejected claims 1-3 and 8-14 under 35 U.S.C. 102(b)[3] as being unpatentable over JP '611, in view of Applicants' allegedly admitted prior art, and further in view of Nakamura et al. (U.S. Patent 5,483,415) and Kudoh.

Applicants respond as follows.

Applicants submit that the present invention is not taught or suggested by JP '611 for the reasons discussed above. That is, the insulating layer of JP '611 is formed by electrodepositing a solution containing a polyamic salt and heat treating to form a polyimide film. In contrast, the masking material solution is applied by press-contacting in the according to amended claims 1 and 2 of the present invention.

In addition, Nakamura does not make up for the deficiencies of JP '611. Nakamura relates to the formation of a solid electrolytic capacitor where one end of a porous chip is impregnated with an insulating substance and the remaining portion of the chip is kept porous. *See* col. 5, lines 22-30. Then, a tantalum wire is attached to the non-porous end of the chip. *See* col. 5, lines 39-40. Then, a dielectric coating is formed on the chip, except for the portion where the chip is non-porous. *See* col. 5, lines 44-59. Therefore, the dielectric oxide film is formed after the porous chip is impregnated with an insulating substance at one end.

Since the dielectric coating is formed after the infiltration of the porous chip

with an insulating substance, Nakamura does not disclose that a masking material solution is coated so as to infiltrate pores of the dielectric film, as in the present invention. Further, Nakamura does not disclose coating a masking material by press-contacting.

Therefore, JP '611 and Nakamura do not teach or suggest the amended claims, and withdrawal of the foregoing rejection is respectfully requested.

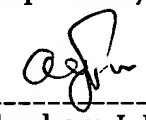
VII. Conclusion

In conclusion, the §102 and 103 rejections should be overcome, and in view of the above, it is respectfully submitted that the claims are in condition for allowance.

Reconsideration and withdrawal of the rejections, and allowance of claims 1-14 at an early date are respectfully requested.

Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,



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[3] It appears the Examiner meant §103(a).

APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims are amended as follows:

1. (Amended) A method for producing a solid electrolytic capacitor comprising a metal material having thereon a dielectric film having surface pores and a solid electrolyte formed on a desired position of the dielectric film, the metal material having valve action, wherein the method comprises the step of coating by press-contacting a masking material solution that infiltrates into the pores of the dielectric film and forms a masking layer on the infiltrated portion.

2. (Amended) A method for producing a solid electrolytic capacitor comprising a metal material having thereon a dielectric film having surface pores and a solid electrolyte formed on a desired position of the dielectric film, the metal material having valve action, wherein the method comprises the step of coating by press-contacting a masking material solution that infiltrates into the pores of the dielectric film and forms a masking layer on the infiltrated portion, wherein a masking resin that has infiltrated into the pores of the dielectric film and solidified during the coating step prevents infiltration of a solid electrolyte formed in a subsequent step.

6. (Amended) [A] The method for producing a solid electrolytic capacitor comprising a metal material having thereon a dielectric film having surface pores and a solid electrolyte formed on a desired position of the dielectric film, said metal material being cut into a predetermined shape and having valve action, as claimed in claim 1, wherein the method comprises the step of coating by press-contacting a masking

material solution on said metal material to form a first masking layer and the step of coating a masking material solution on said metal material to form a second masking layer, wherein at least the step of forming a second masking layer causes the infiltration of the masking material solution into the pores of the dielectric film and the formation of the masking layer on the infiltrated portion.